

# Enhancing national parks for visitors with disabilities through customer-experience-based decision making

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## Introduction

National Park visitors with disabilities need more accessible experiences. This paper will explain:

- Why the National Park Service (NPS) should prioritize prospective and current visitors with disabilities and
- How the NPS's accessibility strategy needs more focus on the NPS mission to provide disabled visitors with *natural* experiences.
- That the NPS needs to incorporate federal mandates and private industry customer experience best practices. Customer experience best practices can be used to inform specific improvements across visitor segments and across park experiences. These specific improvements include those for the nature experience for visitors with disabilities, the specific case studied by this paper.
- the current NPS structure, culture, and decision-making processes related to accessibility and improving it. Customer-experience literature and professional interviews will be used to compare the importance and implementation process of customer-centric decision making, quantitative and qualitative experience measurements, and service design practice to the current NPS structure and culture of collecting and using visitor experience insights.
- Specific opportunities for incorporating best visitor experience practices across the organization. Recommendations will be made that comply with federal mandates and industry best practices to *more efficiently* provide meaningful experiences in nature to all visitors, including those with disabilities.

## Background: Why focus on the National Park Service's disabled visitors?

### Importance of natural experience provision to all

"Wilderness is not a luxury, but a necessity of the human spirit."- Edward Abbey

Abbey's expressed sentiment from his 1967 masterwork, *Desert Solitaire*, about the balance of enjoyment of National Parks with their preservation, is in line with the widely accepted finding that human health benefits by contact with nature (Abbey, 1967). The majority of studies that have found nature-provided health benefits are merely correlational in their findings; however, results from controlled studies on this topic are becoming more readily available (Lee & Maheswaran, 2011). Health and well-being benefits have been discovered from simply viewing nature from afar in an urban setting, such as a tree outside of a window rather than a wall (Taylor, Kuo, and Sullivan, 2002). Other studies have shown that higher levels of connectedness to nature from walking within it have strong positive mental health effects on both depressed and healthy individuals (Lee & Maheswaran, 2011; Mayer et al, 2008).

An immersive nature experience decreases “harmful rumination” on stressful thoughts, an outcome that neither an immersive urban experience nor by a simple visual of nature provided (Bratman et al, 2015). This growing body of research suggests that those who lack access to an *immersive* experience in nature face an increased risk of poor mental health and decreased well-being. While the exact dose-response (i.e., immersion time in nature to secure the health benefit) relationship has yet to be scientifically determined (Shanahan et al, 2015), the overall effect is clear.

The NPS’s need to provide this important human experience grows not only from NPS leadership’s commitment to this value, but more fundamentally from the organization’s enabling legislation. The Organic Act, signed by Woodrow Wilson in 1916, establishes the Service’s purpose as “to conserve the scenery and the natural and historic objects and the wild life therein and *to provide for the enjoyment of the same* in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (16 U.S.C. §1, emphasis added).

This paper focuses on the process by which health and well-being benefits associated with immersive nature experiences are provided to the entirety of the federal tax-paying citizenry, with particular attention to people with disabilities. Other federal legislation since the NPS’s establishment also provides legal guarantee to equity of opportunity in specific categories of national park experiences. Section 504 of the Rehabilitation Act of 1973 mandates that the benefits of a park program or activity are provided in such a way as to not deny them to individuals with disabilities (43 CFR Part 17.549). “Programming” can include natural experience programming, especially in parks where the key park elements are nature-based. This program accessibility is accompanied by a mandate for the design, construction, or alteration of built facilities to comply with official design standards for accessibility to ensure that they can be used by individuals with disabilities (UFAS, Section 3.5). This focus on equal access to people with disabilities matches the NPS’s current planning efforts designed to increase the accessibility of the parks, as discussed below.

### **Ability to plan comprehensively across entire National Park Service**

The 1970 National Park Service General Authorities Act established the mandate that the park “service is managed as a whole, rather than as constituent parts”. The NPS is a system of individually managed parks with ultimate centralized administration, enabling high level strategy and process for performance measurement to be set for the entire system. Best practices from parks successful in a particular function can be compiled and shared as a model for other parks in need of improvements.

### **Ripeness of the issue of accessibility of the park experience**

As widely acknowledged by NPS employees and visitors alike, improved accessibility and data on accessibility-related conditions in parks are needed. In an internal report entitled “2015-2020 All in: Accessibility in National Park Service”, the shortcomings are acknowledged: “Without accessible parks, the National Park Service loses an opportunity to reach the widest possible audience and share a spectrum of experiences. This lost opportunity is a *direct failure to carry out our mission*”. In addition to a potential revenue loss resulting from inability of those with disabilities and their travelling companions to visit, the National Park Service risks

continued exposure to lawsuits from a lack of compliance with accessibility laws (and possibly compliance with their own enabling legislation), which has the potential for a “huge financial impact on parks ” (NPS, 2014).

The National Park Service is currently in the first year of a five-year strategic plan to improve accessibility. As part of this strategic plan, the newly created Accessibility Branch seeks outside help with ongoing measurement and design processes to increase accessibility as addressed by the following goals selected from the plan document:

- *“Engage specialists, as needed, to support project scope and budget development, planning, and design processes to ensure both programmatic and physical accessibility needs are properly addressed. Create knowledgeable regional teams to review projects prior to regional and national Development Advisory Board reviews”* (NPS, 2014, emphasis added).
- *“Identify formal and informal ways to include the input of people with disabilities into the planning and design stages and evaluate implementation of projects. Explore cutting-edge technologies that would increase “virtual” accessibility when more traditional solutions are not possible”* (NPS, 2014, emphasis added).

This same strategic plan does not provide for the nature experience guaranteed by the 1916 NPS enabling legislation. Rather, it emphasizes built environment and programming improvements to improve access to park facilities for those with disabilities as subject to the Architectural Barriers Act (ABA) of 1968.

For a substantial prospective visitor population, the National Park Service fails to deliver upon its mission of providing nature experiences. Though the park service has no data on which to form statistics of actual disabled visitor numbers, a notable 19% of American citizens reported having some kind of disability in 2010 (United States Census Bureau, 2012). Of this 56.7 million people, 30.6 million “had difficulty walking or climbing stairs” or “used a wheelchair, cane, crutches or walker”(United States Census Bureau, 2012). These mobility impairments make it difficult to explore natural places. These numbers likely pale in comparison to the total number of prospective visitors with a disability, as the numbers do not include the prospective international visitors who have disabilities.

More importantly, the affected prospective visitor population is growing. The National Park Service’s baby boomer visitor base is increasingly developing disabilities that come with age. In 2010, the population of adults over the age of 65 was twelve times the population over age 65 in 1900 (APA, 2015). The American Planning Association recently issued a call-to-action to public officials and planners of public spaces and services to “confront the challenges and opportunities that are part of this aging phenomenon, or demographic, or they risk being caught unprepared by the impacts” (APA, 2015).

The National Park Service has a current marketing drive to attract younger generations with the massive “Find Your Park” campaign. Why not *also* maintain visitor numbers by enabling the boomer population to visit for longer, knowing that they can continue to have meaningful experiences in nature even as age limits their mobility? Those with disabilities among NPS’s target younger population would also benefit from improved nature access. In fact, disability affects all of us along a spectrum at varying points in our lives through either permanent or even temporary conditions; therefore, service provision for *all* abilities should be made explicit in all park planning processes.

## An unresolved federal mandate regarding customer service

The NPS's enabling legislation is not the organization's only federal mandate regarding service. President Bill Clinton issued an Executive Order exactly along these lines, demanding that federal agencies be "customer-driven" (Executive Order No. 12862, 1993). He outlined specific steps toward this end:

- 1). Agencies must actively identify customers "who are, *or should be, served by the agency*" (emphasis added)
- 2). Agencies must "survey customers to determine the kind and quality of services they want and their level of satisfaction with existing services"
- 3.) Agencies must "benchmark customer service performance against the best in the business", or "the highest quality of service delivered to customers by private organizations providing a comparable or analogous service" (Executive Order No. 12862, 1993).
- 4.) Decision-making must be based on this customer information: "As information about customer satisfaction becomes available, each agency shall use that information in judging the performance of agency management and in making resource allocations" (Executive Order No. 12862, 1993).

President Barak Obama built upon that call-to-action with his own Executive Order that tasks the federal government with *improving* the quality of service to the public based on that structure. Applicable directives in the more recent order included, but were not limited to:

- "Learn from what is working in the private sector and apply these best practices to deliver services better"
- Develop and publish new customer service plans for each agency with the Office of Management and Budget's consultation
- And "[improve] the customer experience by adopting proven customer service best practices and coordinating across service channels" (Executive Order No. 13571, 2011).

The first priority of five mission areas in the resulting Department of the Interior Customer Service Plan is phrased "Provide Natural and Cultural Resource Protection and *Experiences*" (DOI, 2011, emphasis added). Their first goal within that mission area is to "Increase feedback from customers", which is described in a way that indicates increasing *response rates* and *representation of customer groups*. Increasing numbers of survey respondents across groups is a worthy step toward improving customer experience measurement. However, increasing and diversifying a sample only improves reliability and completeness of customer experience data if the survey itself is crafted using customer experience measurement best practices.

The second goal within that applicable mission area is to "Adopt Best Practices for Improving Customer Experience" as directed by the Executive Order. The two featured actions to be undertaken by the NPS in 2012 and 2013 toward that second goal were: 1) "Evaluate satisfaction surveys and implement ways to improve measures of satisfaction to better reflect customer experiences" and 2) "Evaluate indicators of distractions to recreational experiences such as air and water pollution and manmade noises, and implement ways to improve the information provided by these measures" (DOI, 2011).

If the NPS seeks to continually improve its data on user experiences, it cannot rely on

“existing customer feedback mechanisms” (DOI, 2011). Instead, the NPS must improve their customer feedback mechanisms to align with best practices, as directed by the order (DOI, 2011, emphasis added; Manning & Bodine, 2012). The apparent operating assumption is that the current surveys occupy the field of visitor experience information collection. Further, it is insinuated that all gaps in all customers’ experiences are already known. This insinuation circumnavigates a customer experience best practice of performing research to *learn* of potential gaps in the experience to customer segments. “Distractions” such as pollution and noise are provided as examples, rather than potential factors that might make the nature experience completely inaccessible (DOI, 2011). The NPS stated desire that “the recreational opportunities provided by NPS are available to all” (DOI, 2011) is not yet well founded in practice.

The customer service plan exhibits a lack of concern for looking outside of current mechanisms and outside of the organization for optimal customer experience models. Therefore, organizational change theory principles may need to be employed to enable the adoption of language, culture, structure, and processes of customer experience best practices.

In 2014, the Government Accounting Office published a report that found the National Park Service standards did not include any of the three key elements required by the executive orders: “customer service standards that include targets and goals for performance”, “customer service standards that include performance measures”, and “customer service standards that are easily publicly available.” The report concluded that without those elements, an agency would be unlikely to be able to “measure their progress towards meeting those goals and pinpoint improvement opportunities” (GAO, 2014).

## Summary

From multiple directions, including internally, the National Park Service has been tasked with delivering quality, accessible natural experiences to visitors of all abilities. The service is currently building a nationwide strategy for tackling the glut of accessibility-related issues across the park system with limited funding. As a federal agency, the National Park Service has also been mandated to bring its customer service measurement and decision-making up to par with private sector work in that arena. The “existing customer feedback mechanisms” have failed to provide customer-driven, decision-enabling data points for prioritizing projects. This includes failing to provide a prioritization process for *accessibility*-related projects that would make experiences provided by the NPS “available to all”.

## Project goals

This project will identify specific improvement opportunities for the way the National Park Service comprehensively thinks about, measures, designs, and strategizes the visitor experience with park services, built environment, and natural environment. The project has these goals:

- 1). To demonstrate the importance of the NPS achieving compliance with its own service delivery mission, as well as compliance with multiple federal mandates to follow customer experience best practices.

- 2.) To provide specific recommendations for how the organization can achieve compliance and see the benefits in decision making efficiency.

The ripe issue of natural experience delivery for national park visitors with disabilities will be used as a model. Specific actions will be proposed to demonstrate how a customer experience measurement and service design framework can advance strategies for accessibility project selection and funding prioritization.

## Methodology

Expert interviews were conducted with a variety of professionals both internal and external to the National Park Service. The wide variety of professional expertise necessitated a question design crafted to fit each individual's experience and organizational background.

All National Park Service employees interviewed are direct stakeholders in the general visitor experience or specifically in the experience of visitors with disabilities. Each of this group of interviewees was asked about the current organizational structure, culture, policies, and practices related to planning for accessibility-related improvement projects and related to general visitor experience data collection and use.

Some interviews with those external to NPS aimed to gather information about the interviewees' specialized experiences related to planning for disability, to recreation planning for disability, and to universal design. Other interviews with those external to NPS targeted an understanding of best practices for successfully implementing a program of customer experience measurement and design within an organization.

Primary data collection took place between January and March 2016. In November and December of 2015, the author identified target interviewees with expertise in the above areas. Each possible participant was contacted up to three times via email to explain the research questions, to gauge their interest, and to schedule an informal phone or in-person conversation. Some interviewees pointed the author to other possible participants, many of whom participated in the research as well. A total of 29 participated, representing a variety of disciplines:

- 14 National Park Employees, including the Chief of the National Accessibility Branch, 2 community planners, 2 landscape architects, 2 regional accessibility coordinators, 1 park superintendent, 2 park maintenance chiefs, 1 programming accessibility specialist, the Chief of the National Park Social Science Program, and the lone visitor information collections manager in the NPS.
- 7 customer experience private sector professionals
- 1 Government Services Administration customer experience professional
- 2 service design consultants
- 3 independent or non-profit disability experts (one of whom consults on accessibility training to the National Park Service at the national level, another who consults on accessibility training at the regional level)
- 1 Fish and Wildlife Service facilities chief
- 1 university researcher with project work related to disability.

The author also conducted an expanded review of literature and professional reports about customer experience industry best practices to estimate—from an external perspective—



how those best practices might best be applied to improving the accessible experience in the National Park Service.

## Findings

### Current NPS structure as related to accessibility

The national Accessibility Branch sits within the NPS “Park Planning, Facilities, and Lands” Directorate, housed in Washington, D.C. The branch is responsible for setting national policy on training and for infrastructural support that enables the seven regions and parks within them to carry out operations to improve accessibility. An accessibility-focused team of landscape architects and planners sits within the same Directorate and is based in the Denver Service Center. A corresponding team focused on interpretation and education accessibility sits in a Harper’s Ferry Center in a separate “Interpretation, Education, and Volunteers” Directorate.

Since 1980, each of the seven regional offices has had a division chief with a 20% “collateral duty”, or side responsibility, of supporting accessibility efforts for parks in their region (NPS Director’s Order 42). These collateral duties are above and beyond their main duties as either a Division Chief of Facilities or Division Chief of Interpretation. The regional accessibility coordinators are tasked with providing technical support to park staff addressing accessibility issues. Unfortunately, it is common for these regional coordinators to lament that they have “no time to spend on it” on top of their regular duties (In-person interview with Southeast Regional Accessibility Coordinator, Don Wollenhaupt, on February 23, 2016 and phone interview with Pacific-West Regional Accessibility Coordinator, Trung-son Nguyen, on March 10, 2016). Importantly, performance assessment is based on employees’ principal job functions, not collateral duties (Phone interview with Trung-son Nguyen on March 10, 2016).

Most regional coordinators’ core roles focus on park facilities. The Southeast Regional Accessibility Coordinator alone has a main role focused on interpretation and education. The accessibility-related technical assistance each provides to their regional parks aligns with the expertise required for their core role. That is, the Pacific West regional accessibility coordinator, whose background is in architecture and whose main role at NPS is a Division Chief of Facilities, provides parks with technical expertise related to meeting accessibility standards *in the built environment*. Conversely, this built environment expertise will not be filtered down from the Southeast regional coordinator to parks in that region, as his background is as an interpretive ranger and his main role is the division chief of *interpretation and education*. This seems to leave each division without technical assistance in areas in which the accessibility coordinator is not an expert—that is, when their extensive responsibilities leave them with time left to think about accessibility.

Both regional accessibility coordinators interviewed expressed a strong need for full-time accessibility-focused staff at the regional level. They envision this existing as either one full-time staff member or the equivalent of one full-time staff member with duties distributed across a diversely talented team (In-person interview with Southeast Regional Accessibility Coordinator, Don Wollenhaupt, on February 23, 2016 and phone interview with Pacific-West Regional Accessibility Coordinator, Trung-son Nguyen, on March 10, 2016).

The park-level contacts for these division chiefs with collateral duties as regional accessibility coordinators are often park superintendents, deputy superintendents for large parks, or park-level facilities chiefs. The lone accessibility-focused staff member at the park level has been posted at Golden Gate National Recreation Area since 2008, when a class-action lawsuit was brought against the park by a disability rights advocate group for the park's failure to meet accessibility requirements. This accessibility-focused staff role sits within that park's facilities team.

Richard de la O, who has been in the role since its creation, feels strongly that his role is needed in parks across the entire park system. He advised that at least one dedicated accessibility-focused employee is needed for every large park, with the possibility of a multi-park role for accessibility coordinators of smaller parks (Phone interview with de la O on March 7, 2016). He often fulfills this cross-park advisory role now whenever the regional accessibility coordinator requests his assistance for nearby parks. Mr. de la O has developed strong relationships with disability groups in the area with a lot of effort and over many years in his role. He laments that many parks either do not have the capacity to or do not understand the value of cultivating these relationships. Strong community relationships, he said, provide valuable access to information on that community's needs and on proposed changes that will affect their park experiences.

### **Current NPS processes for improving accessibility**

Jeremy Buzzell was recently hired Chief of the Accessibility Branch, the position created in the 2015-2020 strategic plan. His background includes both study of and federal work related to disability policy. Buzzell holds monthly conference calls with a Service-wide Accessibility Coordinating Committee made up of those in the other accessibility-focused roles just delineated.

Buzzell and the Accessibility Branch are currently developing criteria for "accessibility" system-wide. He expressed a need to enable visitors to decide for themselves if trails are accessible, based on their own level of ability. For this purpose, Buzzell described a dire need for a trail inventory across the 409 system parks so that both NPS and its visitors can make decisions about trails based on their dimensions (grade, cross-slope, width, and length) and material cover. The Accessibility Branch currently has no data based system for *prioritizing* funding for accessibility-specific improvements (phone conversation with Jeremy Buzzell, November 12, 2015). Once Buzzell's team is able to develop their trail inventory, he says prioritization of necessary improvements will likely begin with parks with the highest visitation rates.

The first major initiative undertaken by the Accessibility Branch is the Targeted Accessibility Improvement Program currently underway. The Service-wide Accessibility Coordinating Committee decided on nine categories for which they would choose one target project each to serve as a model for approaching accessibility in that category. For instance, they wanted to have a model for an accessible nature trail, a model for accessible programming, and a model for an accessible water-based recreation experience. Parks submitted projects toward those three and another six categories, and the committee selected one in each category they thought would have the highest impact. Interdisciplinary teams consisting of Accessibility Branch and the Denver Service Center experts will now assess how all

elements of each project's targeted park destination compare to ABA standards. This project team will then make changes to make bring all elements of that destination up to standard. The intent is for the nine projects to serve as models for other parks for how to create holistically accessible experiences. For instance, the restroom, parking, and signage at a trailhead will all be brought up to standard. This approach contrasts with the current norm of bringing to standard facilities that are scattered throughout a park.

On an ongoing basis, park-level facilities managers do facilities assessments and submit proposed projects to division chiefs for the current federal funding programs in which the manager thinks the project will be most competitive that year (barring no local funding for the project from a foundation, for instance). There is no specific funding allocation for accessibility improvements. However, it has become a "hot topic" since the 2008 lawsuit. With the new Accessibility Branch, accessibility-deficient projects submitted to other funding buckets, such as the bucket for repair and rehabilitation, will likely get some preferential project selection over projects that do not.

The regional level decision-makers of accessibility-related funding expressed little interest in experience data collected from visitors. One of the regional coordinators reported that the only team interested in that type of data was the NPS Social Sciences division. Almost all NPS interviewees mentioned that while some visitors might be able to provide valuable and actionable information, many visitors providing feedback would likely ask for unrealistic improvements. A few interviewees mentioned complaints that the current, formal, letter-based complaints include requests that too extreme or unachievable. The general mood regarding customer suggestions was one of slight annoyance.

This unsolicited complaint process is different from one of active inclusion by NPS to discover barriers to a great experience. There is no set, service-wide process for actively involving users with disabilities to identify pain points they experience in parks to inform improvements. Individual parks have brought in nearby disability groups on an infrequent basis for this purpose; however, many parks do not have relationships with disability groups that could be tapped for this interactive design research. Michele Hartley, Media Accessibility Coordinator at the Harper's Ferry Center, described the center's relatively frequent testing of newly developed interpretation services and products with users with a variety of disabilities; however, this testing is non-systematic (Phone interview with Hartley on February 3, 2016). When prompted about incorporating any visitor group into the discovery and planning process, many interviewees described the citizen feedback process required as part of the NEPA evaluation process prior to any project. The extent to which this community feedback is gathered early enough in development processes to inform design varies greatly by park and by the strength of relationships each park has with surrounding communities.

None of the interviewees have utilized a process for impact evaluation or measured the success of an accessibility-related improvement project post-implementation. Limited resources for impact evaluation was the most common reason initially cited, with many interviewees also identified a primary obstacle is management's fear of identifying a failure after a large investment has been made.

### **Current NPS culture as related to accessibility**

De la O noted that park staff members often lack empathy for the needs of visitors with disabilities. This is true of those in management positions, with whom it can frequently be an uphill battle to get approval for projects related to accessibility. He explained he does not see it as a personal fault to not have the necessary awareness to make accessibility a priority: “If you don’t understand a disability, you don’t know what to prioritize. You don’t know that the toilet paper being located on the far wall of the ‘accessible’ bathroom stall is not just a small inconvenience”. De la O attributed the common lack of empathy to:

- inexperience interacting with individuals with disabilities and
- not having personal experience with a family member, friend, or coworker with a disability, which would naturally build empathy for their needs.

He thinks this awareness and understanding could be improved with more readily available and enhanced training about disability and accessibility.

The National Park Service has had a long-term partnership with Indiana University’s National Center for Accessibility to provide accessibility assessments and employee accessibility trainings. The new Accessibility Branch has continued this partnership and broadened its scope. Sherril Lee York, Director of the center, described the current assessment process her team is undertaking of all existing accessibility-related trainings available at any NPS level. Once the current situation is evaluated, a new program of training will be developed, specifying which employees at which levels and in which areas of focus need which types of trainings. The plan will include all NPS employees, because as Golden Gate’s accessibility coordinator Richard de la O expressed, “even the cleaning people have an impact on accessibility”.

York described the content of the trainings as largely focused on bringing facilities and programming to compliance with legal standards. However, she sees a need for park-level decision-makers to have a deeper understanding of how experiences can be made accessible. She provided an example of park staff locating the single accessible campsite next to the accessible restroom. While this proximity enables convenient restroom access, it fails to consider that the visitor with a disability is “just like everyone else” in his or her desire to not be within sight of the restroom while camping. Importantly, she also reported that training volunteers or employees of concessionaires is outside the project scope and resources.

### **Findings from customer experience literature and professionals about the importance of and implementation process of customer-centric decision-making**

A culture-changing language adjustment is one of the most important first steps to incorporating private industry best practices for service. “Customer service”, the terminology most frequently used in the federal documentation described above, is not equal to “customer experience” (Manning & Bodine, 2012). As put by Forrester Researchers Manning and Bodine (2012), “People call customer service when they have a problem”. “Customer service” is reactive to already-experienced problematic interactions. “Customer experience” is the perception that customers have of all of the interactions they have with an organization. This includes its communications, services, products, and transactions. “Customer experience” and “service design” are often used somewhat interchangeably. More precisely, “service design” describes the practice undertaken by professionals designing services to optimize customer

experience. If a distinction is made between two fields, the “customer experience” field often includes more measurement practice while the “service design” field includes more design and creation. The aforementioned DOI Customer Service Plan lacks these best practices regarding customer experience language and resulting culture, and these best practices should be integrated into the DOI’s approach to customer-centric decision-making (DOI, 2011).

Customer experience measurement practice serves as a tool for both performance measurement and decision-making. The basic concept is that understanding how customers feel about interactions tells organizations about the drivers of a good or bad experience with them and the customer’s behavior that results from having that good or bad experience (Manning and Bodine, 2012). This is actionable insight that connects customer experience quality with business results (Manning and Bodine, 2012).

A key to a customer experience measurement framework is that culture, policies, and organizational structure not only enable customer experience measurement, but also specifically require that these metrics inform business decisions. This “outside-in” approach to using customer insight to inform decisions prevents “solutionism”—fixing problems that people do not actually encounter in their interactions with the organization. Founders of the global service design firm Live|Work describe the importance of this customer-centric view: “What is different about customer [insight-driven] innovations is that the goal is to develop new ways of meeting needs rather than improvements or tweaks on the existing model” (Reason, Lovlie, & Flu, 2015, pg. 78). This means that finding new ways to meet customer needs can lead to not only improved customer experiences but also to improved internal efficiencies.

Customer experience industry experts report that customer experience is a reflection of an organization’s culture and the level of empathy for the customer’s needs at both the organization level and at the employee level. For a good customer experience to be sustainable, the organizational culture must be transformed into a customer-centric one with employees that are engaged in the customer’s needs. Organizational culture and policy dictate the extent to which customer insights inform strategy and decision-making at all levels. Thus, for customer experience to be embedded within an organization’s culture and strategy, an organization that does not make decisions in that way may have to undergo substantial organizational change.

Business management literature is rife with models of organizational change processes. A classic is Kurt Lewin’s simplified three-steps: 1.) “unfreezing the status quo” by catalyzing driving forces and removing any restraints, 2.) “movement to a desired end state, and 3.) refreezing the new change to make it permanent” (Lewin, 1951; Robbins & Judge, 2003). An organization’s built-in mechanisms and the interdependence of many organization’s subsystems can serve as “structural inertia” and be powerful sources of an organization’s resistance to change (Robbins & Judge, 2003).

The subsystem interdependence necessitates larger—and thus harder-to-swallow—system-wide change rather than just change within the sub-system of focus. A team focused on one area of service delivery or service delivery to one population likely needs approval and support from the broader organization and leadership to create impactful, sustainable change in their specific area of service delivery. In the current example, a customer-based governance strategy broader than the Accessibility Branch is likely needed in order to make funding decisions based on customer insight acceptable within the larger organization’s governance.

John Kotter's detailed, eight-step guide to successfully implementing change is cited with amazing frequency:

1. Establish a sense of urgency by creating a compelling reason why change is needed.
2. Form a coalition with enough power to lead the change.
3. Create a new vision to direct the change and strategies for achieving that vision.
4. Communicate the vision throughout the organization.
5. Empower others to act on the vision by removing barriers to change and encouraging risk taking and creative problem solving.
6. Plan for, create, and reward short-term "wins" that move the organization toward the new vision.
7. Consolidate improvements, reassess changes, and make necessary adjustments in the new programs.
8. Reinforce the changes by demonstrating the relationship between new behaviors and organizational success (Kotter, 1995).

Many of Kotter's change implementation steps insinuate that the executing organization is a nimble one. In fact, nimbleness is a quality many organizations might strive to achieve via their change processes. "Nimble" is not frequently a term to describe government or public organizations' ability to adapt to change.

Organizations that embrace change, frequently termed "innovative", tend to share a similar culture in that they celebrate risks taken, even failures, at multiple levels in the organization (Brown, 2009; Robbins & Judge, 2003). This characteristic that influences the degree to which change and innovation flourish in an organization is a challenge public organizations face in their management structures, culture, and human resource policies (Robbins & Judge, 2003). The argument for creating a culture for change, especially the risk-taking culture, is perhaps harder when public dollars are being used to test potential changes. Lewin's change process has been shown most likely effective when the movement stage where the actual change occurs (the second step), does not happen in a slow, drawn out fashion—a possible hindrance to successful change processes in bureaucratic organizations (Robbins & Judge, 2003).

Forrester Research, a top-of-the-line consultancy, has done extensive exploration into organizational change as specifically applied to adoption of customer experience practice (Manning & Bodine, 2012). Their resulting definitions of adoption levels are based on how consistently organizations perform the practices, from "missing", to "ad hoc", to repeatable", to "systematic" (Manning & Bodine, 2012). The "systematic" level of adoption is the level at which an organization's customer experience measurement framework is translated into measureable business results. It is achieved when an organization has a defined process that specifies:

- 1.) how customer experience practices will be performed and by whom, and
- 2.) when every project proposal is checked against the same customer experience measurement framework being used everywhere else in the organization for every other proposal (Manning & Bodine, 2012).

Temkin Group's research on the stages of companies' customer experience maturity distinguishes between six stages: "Ignore", "Explore", "Mobilize", "Operationalize", "Align", and "Embed" (Temkin, 2013):

- Organizations who "ignore" customer experience do not view it as a "strategic imperative".
- Those "exploring" it have spread awareness and interest even with leadership
- Customer experience-"mobilized" companies often have appointed a member of leadership to run their customer experience efforts.
- Those who have "operationalized" it have set a process for making trade-offs with competing priorities in business operations.
- Customer experience-"aligned" organizations have strong measurement structure in place, as well as HR practices that reinforce great customer experience.
- For customer experience to be truly "embedded" in an organization, the organization does not "focus on [customer experience] as an independent activity. Great [customer experience] is a byproduct of the company delivering on its strong brand mission" (Temkin, 2013).

All customer experience professionals interviewed indicated that a staff person or team dedicated entirely to customer experience is essential for success at these aspects of customer experience governance. It has become commonplace for private organizations' executive staff to include a role that encompasses the duties—if not with the actual title—of a "Chief Experience Officer". Every case study of successful customer-oriented organizations also includes a team focused entirely on understanding customers' needs across their interactions with an organization.

Each of these organizations then has a formal process for infusing insights collected by this team into all decisions made at all levels of the organization. That is, the data is not held in a silo by the part of the organization collecting it. Employees outside of that customer experience team also need to be customer-focused. All employees must understand their responsibility in affecting the customer experience such that they have a sense of ownership of that experience. Employees are often motivated in this realm when customer experience outcomes are tied to measures of their own performance (Manning & Bodine, 2012; Temkin & Zdatny, 2014).

Customer experience governance must be part of basic job responsibilities at all levels of the organization, such that roles are filled with customer-focused people that understand and are held accountable to role-specific customer experience metrics (Brown, 2009; Manning & Bodine, 2012; Temkin & Zdatny, 2014). Employees at all levels need to be empowered to make decisions that create great customer experiences. This might mean deviating from "a script" when it is necessary to do so or going above and beyond policies or standards when required to create a good customer experience (In-person interview on February 24, 2016 with service designer Florian Vollmer).

To make these cultural and process changes happen, an organization's leadership has to prioritize customer experience indicators. Leadership also needs a set process for making trade-offs with competing priorities (costs, etc.) in business operations (Temkin, 2013).

Though much more established in private industry, customer experience programs have begun to be considered appropriate in the public sphere. Customers have learned to expect a certain standard of service from all of the organizations with whom they interact, not just those that are private (Reason, Lovlie, & Flu, 2015). Structure, operations, and goals of public sector programs are often modeled after successful versions in private organizations. However, it is still relatively rare in a public organization to find an individual or team dedicated to facilitating organization-wide customer experience governance.

### **Findings from customer experience literature on quantitative experience measurement practice in general and in reference to nature experiences**

Many organizations opt for implementing a standard “customer satisfaction” index methodology as the base of their customer experience measurement, such as Forrester’s Customer Experience Index or the University of Michigan-developed American Customer Satisfaction Index (ACSI). This enables the status and progress of their organization’s findings to be benchmarked against those of others in their category or industry (Manning & Bodine, 2012). These customer satisfaction frameworks use generalized satisfaction questions to collect quantitative customer data from post-experience “Voice-of-the-Customer” surveys.

In addition to gathering information about customers’ satisfaction with their experiences, these methodologies include questions that enable the satisfaction measure to be tied to business outcomes, such as how likely the customer would be to recommend that experience to a friend or colleague. Many organizations utilize data from this “likelihood to recommend” question as a key indicator of success, as it correlates with word-of-mouth promotion from that customer to other prospective customers. This “Net Promoter Score” as it is called, as compared to that of competitors, is often thought of as being intimately tied to business performance (ACSI, 2015; Manning & Bodine, 2012).

Public service performance on customer satisfaction measures will always have a somewhat distinctive purpose from their function in private firms. Industry benchmarks can be less informative for government organizations with unmatched offerings such as the National Park Service’s parks—each unique even among the collection of NPS parks. Indexed scores of other organizations and industries might be useful to the NPS as a rough comparison. Because they are not direct apples-to-apples comparisons, the park system may need to also develop its own ongoing, system-wide customer experience measurement with their own benchmarks. This will allow the visitor experience to be compared across system parks and over time. For a public organization, there is likely to be less elasticity between customer experience and revenue generated.

In the case of National Parks, each park begins with a competitive advantage in that is already a unique offering in and of itself. Prospective visitors desiring to see oft-photographed canyons and waterfalls cannot snap the same photo on a “comparable” vacation elsewhere. However, the overall experience available to prospective visitors still has competition with other vacation options or with not traveling at all. If prospective visitors with disabilities see real or perceived barriers to their ability to experience key aspects of parks, they might opt for other, more accessible vacations and miss the richness of our national parks.



The ASCI regularly reports a customer satisfaction index for federal government services by department ranging from customer interactions with the Treasury to Homeland Security to the Department of Education. Out of 100, the federal government average ACSI in 2015 was 64 (ACSI, 2016). The Department of the Interior, whose “always popular”, “primary citizen-facing services” are those offered by the National Park Service, leads the group with an index of 75 (ACSI, 2016). This score impressively tops the national multi-industry ACSI score of 73.8 (ACSI, 2016).

However, general measures of user satisfaction with natural experiences have not proven actionable. Studies by parks and recreation researchers have almost universally found high measures of overall customer satisfaction in natural places with so little variance as to prevent the practical measurement of changes to those places (Manning, 2003). Manning (2003) attributes this phenomenon to “the potentially overwhelming character of natural...features in many national parks and wilderness areas which may simply ‘overpower’ other variables that could influence visitor satisfaction” (Manning, 2003). He also points to the “fact that recreational activities are generally self-selected”, which introduce a bias to the satisfaction metric. This “overwhelming character” presents a potential major difficulty with the proposed customer experience measurement process (Manning, 2003).

To discover needed improvements, each self-selected experience needs to be compared to each visitor’s *expectations* for that chosen experience. The “expectancy-disconfirmation” model is often used to explain the cognitive process through which a person’s satisfaction with a provided service is determined: the perceived performance either confirms or disconfirms prior expectations (Morgeson, 2013). This model has been shown to function well to describe satisfaction not only with services provided by private organizations, but also for local, state, and federal government organizations (Morgeson, 2013). This has proven true in studies of the Wilderness Act’s required measure of visitor “solitude”. “Solitude” is objectively defined as the number of encounters with others while in the backcountry. This measure has been found to impact backpackers’ satisfaction via a subjective pathway, mediated by their *expectations* of solitude for the specific location (Freimund et al, 2003; Manning, 1999).

An interesting note regarding this project’s population of interest: visitors with new or progressive disabilities have experiences from their previous level of ability in mind. They may have a different ideal experience in mind—and thus, different expectations—than people with lifelong disabilities.

These previously conducted visitor studies addressed a balance between visitor experience and resource management, in line with the park service’s dual mandate. In fact, university natural resource departments often, if not always, conduct these studies. This seems to indicate a stronger environmental conservation bent as opposed to social sciences strengths in measuring visitor perceptions (Borrie & Birzell, 2001; Manning, 1999; Manning & Krymkowski, 2010).

In addition to the general customer *satisfaction* measurement, organizations often employ a second tier of experience measurement that dives deeply into specific details of a customer’s experience. For instance, the American Cancer Society’s Voice-of-the-Customer program’s first tier of measurement is a National Customer Experience Survey that goes out to all ACS customers, constituents, donors, and event participants. All customers are asked general satisfaction questions like those that fit the standardized indices. Customers are asked

to rate their overall experience with their ACS involvement, whether it was donating, participating in an event, or getting information about cancer as a caregiver or cancer survivor. They are asked how they felt about their experience with ACS and how likely they were to recommend that type of involvement to a friend or colleague. These enable the benchmarking against other health-related non-profits with whom ACS competes for donor dollars and event participants. Customers are also asked more actionable, open-ended questions such as “What could we have done to improve your experience with [the specific involvement that customer had]?”

The ACS Voice-of-the-Customer program then also includes an even more actionable second tier of surveys that goes into much more detail about specific experiences that either customers or constituents have had with the organization. For instance, after their local event date, registered fundraising participants receive an email survey that includes an overall satisfaction battery of questions. It then prompts to them to rate their satisfaction with specific details of the event within categories. It asks about their satisfaction with facilities (restrooms, stage area, walk route, parking, signage, etc) and programming (such as whether the people who spoke at the events were moving, etc.). This enables comparisons of participant satisfaction across events and over time. The organization can take action on an event performing poorly in a certain area by connecting that event manager with an event manager who has had success in that same area for best practice sharing between them.

As Forrester Researchers Manning and Bodine (2012) say, “picking the customer experiences you want to measure is half the battle”. They indicate that the most actionable data measures customers perceptions of experiences tied to the organization’s brand and value proposition. For the visitor experience side of the NPS’s mandate, this should be the “experience in nature”.

Manning and Bodine’s second half of the battle is deciding how to measure those perceptions (Manning and Bodine, 2012). A detailed second tier of survey questions needs to capture perceptions of discrete steps customers take as they move through experiencing the park and its nature programming (Manning and Bodine, 2012). This would enable the organization to take specific actions to improve that big picture “experience in nature”.

### **Findings from customer experience literature on qualitative experience measurement and service design practice**

Insight that drives better design “does not usually come from reams of quantitative data that measure exactly what we already have...A better starting point is to go out into the world and observe the actual experiences of [people] as they improvise their way through their daily lives...Their actual behaviors, however, can provide us with invaluable clues about their range of unmet needs” (Brown, 2009, pg. 40-41). Customer experience professionals and service designers use qualitative design research techniques to gather insight into customer needs that can either stand alone or tell the “why” behind quantitative survey responses. These techniques include many empathy-building ethnographic research methods and co-creation approaches that bring customers into the discovery and design process. Empathy with the user is a key tenet of well-designed experiences that are provided from the top down at an

organization or even at the customer-facing employee level (Brown, 2009; Reason, Lovlie, & Flu, 2015).

The founders of global service design firm Live|Work described the way a service design approach can aid in this cost-saving public service efficiency:

“In public services, the drive can be to dramatically reduce the cost to serve customers while retaining quality. To do this, it is essential to think radically about how to meet customer needs with significantly fewer or different resources. A customer view is required to be successful. The service design approach develops that customer view to innovate new services or initiate dramatic changes to existing services. It does this in a unique way that starts with customers and connects to business impact and organizational capabilities” (Reason, Lovlie, & Flu, 2015, pg. 78-79).

A customer journey map is a simple, but powerful service design tool used in many organizations to build empathy among employees for user needs while simultaneously uncovering actionable data about customer needs. The group exercise commonly takes place as part of a workshop that includes an organization’s customers, its employees, and a variety of other stakeholders. The customer journey map is typically a physical, visual artifact created on a whiteboard or butcher paper with post-it notes representing specific “touch points”, or interactions between the organization and the customer, over the course of the specific customer experience. These touch points can be mapped into a complete customer *narrative* that takes place along a timeline or route starting from the period leading up to the service experience, during the service experience, and after the service experience (Luma Institute, 2014).

Touch points consist of all customers’ interactions with an organization’s employees, products, communications, and environments, including built environments and web environments, such as an organization’s website. The touch points themselves are logged and frequently paired with notes about what the customer or service user is thinking, feeling, and doing before, during, and after each touch point within the service experience. This process elucidates any “pain points” from the customer perspective that take place over the course of the narrative. Pain points can range from mere irritations to absolute barriers to use. Armed with this information, organizations can then design interventions to address those pain points. The touch points generated in this exercise can also inform the touch points that are asked about in the second tier of quantitative customer surveys mentioned above.

The American Cancer Society (ACS), though a private organization rather than public, has a similar need to that of a government agency for smart stewardship of limited funding. (In their case, it is limited donor dollars rather than taxpayer funding.) ACS also mirrors a federal agency in its nation-wide reach and bureaucratic tendencies that have sometimes historically prevented nimble reactions to customer needs. The non-profit’s implementation of a customer experience program has helped them to be more responsive to customer needs at their fundraising events. This enables the improvement of customer experience scores while creating efficiencies in event operations.

In conjunction with the quantitative “Voice of the Customer” program described earlier, the organization has undertaken a number of workshops with both event managers and event

participants in which a more qualitative picture of the event experience explains the variation in the quantitative Voice-of-the-Customer data. The group jointly created a customer journey map for their Making Strides Against Breast Cancer walk event. The journey maps revealed that while the company's Relay for Life events each have a large, branded, emotional moment that is highly engaging to all in attendance, the other fundraising event brand, Making Strides Against Breast Cancer, had no engaging emotional moment at any point in the event. Thus, the breast cancer walk experience was not engaging participants in a meaningful way as the Relay for Life counterparts. This finding instigated a process to ideate an emotional moment to pull in event participants such that they felt connected to the cause to donate more money, to return to the event the following year, and to share their engagement with the brand and cause with their friends and family. The simple exercise led to a very impactful finding that informed the design of new services at events. As a result, Making Strides Against Breast Cancer participants the following event season reported higher personal connections to the cause. Donations increased significantly from the previous year.

### **Current NPS structure and culture as related to a visitor experience insights**

When the NPS was created with its dual purpose for both natural preservation and visitor experience, the legislation outlined no provisions for collecting data on or monitoring the state of progress toward either purpose (16 U.S.C. §1). By 1930, national parks had become recreation parks for the sole purpose of entertaining visitors (Sellars, 2009). They were managed entirely for public use and tourism, with almost complete disregard for natural ecosystems. The NPS stocked invasive species of fish for fishing, killed predators not preferred by visitors, and provided large swaths of parkland for golf courses (Sellars, 2009). Despite strong pushes by wildlife biologists in the 1930s to start science-based programs for ecological monitoring, a true commitment to using science in natural resource management did not come about until the early 1980s, after a decade of strong, external environmental concern (Sellars, 2009).

Twenty-year park management plans now utilize more robust set of "visitor use" indicators of ecosystem health. A "visitor use management" team in the Denver Service Center manages this data input and its incorporation into management plans. No ongoing, comparably detailed metrics or indicators of visitor experience were ever developed. This is likely because of:

- 1.) the early imbalance toward providing visitor entertainment over the natural protection side of the mandate and
- 2.) the traditional, general knowledge that visitors enjoy the scenery and entertainment of visiting parks so measurement might have seemed futile.

The NPS Social Sciences Division, a small team housed within a directorate separate from the staff structures already discussed, is the hub of visitor data collection for individual parks, regions, and the national level. The team collects huge sets of visitor statistics using traffic counters placed at key locations in parks. It is also the traditional internal partner of the contracted university departments that have managed visitor surveys. The most recent contract with the University of Idaho's "Visitor Services Unit" was not renewed, however, because the


NPS thought the generic experience information provided was not useful across NPS's disparate services.

The annual survey created by that Visitor Services Unit is still in use. One day each year, four hundred visitors in each park complete scannable cards that ask how certain aspects of the park facilities, visitor services, and recreational facilities rate on a 5-point Likert scale from "very poor" to "very good" (see Figure 1). Each of the 400 visitors has the opportunity to report that they did not use one of the facilities, services, or recreational opportunities. If visitors report a poor experience or did not use one of the facilities, services, or recreational opportunities, there is no opportunity to provide information about *why* it was not used. If it simply did not appeal to them or if their travel group ran out of time, their explanations would not be actionable; however, if the experience was not accessible to them or if they encountered a barrier, the park service could use that data point. *Without the reasons behind these responses, action cannot be taken to remedy a pain point or barrier.*

**Figure 1. 2014 Visitor Survey Card**

**Your Opinion Counts!**  
 <NAME OF PARK>

OMB Control No. 1024-0218

**PLEASE USE BLUE OR BLACK INK ONLY**      **CORRECT MARK**       **FILL IN THE OVAL COMPLETELY**

	Very Good	Good	Average	Poor	Very Poor	Not used or not available				
<b>Park Facilities</b>										
Visitor center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Exhibits (indoor and outdoor)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Restrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Walkways, trails, and roads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Campgrounds and/or picnic areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
<b>Visitor Services</b>										
Assistance from park employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Park map or brochure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Ranger programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Value for entrance fee paid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Commercial services in the park (food, lodging, gifts, rentals, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Please specify services used _____										
<b>Recreational Opportunities</b>										
Learning about nature, history, or culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Outdoor recreation (sightseeing, camping, bicycling, boating, hiking, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
Overall quality of facilities, services, and recreational opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
Your gender and age?		Male	Female	18-21	22-30	31-40	41-50	51-60	61-70	71+
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This park was established because of its significance to the nation. In your opinion, what is the national significance of this park?										
_____										
_____										
Is there anything else you would like to tell us about this park's facilities, services, or recreational opportunities?										
_____										
_____										
_____										

2014 Visitor Survey Card      <PARK CODE>

18-21 22-30 31-40 41-50 51-60 61-70 71+

In addition to the universal customer scorecard, one or two parks per year have conducted their own visitor surveys. Over the course of the past decade, a few of these studies have asked a question about disability affecting the ability to access the park. For instance, the Chickamauga Battlefield National Military Park conducted a 2014 post-visit survey that included a 1-5 rating about the quality of access for disabled persons for specific services and facilities: The respondent was then asked:

b) If used, <b>how important?</b>	c) If used, <b>what quality?</b>
1=Not at all important	1=Very poor
2=Slightly important	2=Poor
3=Moderately important	3=Average
4=Very important	4=Good
5=Extremely important	5=Very good

A question later in the survey asked “Did anyone in your personal group have a physical condition that made it difficult to access or participate in park activities or services?” A conditional follow-up question was presented: “If **YES**, what services or activities were difficult to access/participate in?” with one short line available for writing a response. None of the questions prompted respondents to describe *what about the park activities or services did not enable participation and access*. Therefore, the barriers could not be identified and addressed by park management.

When prompted about the extent to which park management decisions are *visitor-oriented*, NPS interviewees all described park management’s accounting for “a constant balance” between visitor experience and the natural resource protection. However, while performance management indicators exist that measure the impact of visitor use on the natural resource, there is no corresponding, ongoing data for the visitor experience to inform that balancing act between the two sides of the dual mandate. Decisions based on available longitudinal data do not consider visitors’ experiences.

In a process completely separate from the social sciences work, park-level project managers for facilities improvements do have a Project Management Information System. They must justify a project’s impact on “visitor enjoyment” as one of seven required categories for funding justification. The system does not require specification of *measurable* results along the seven categories, just a high-level description. The reports from this system to which the author has been privy have included visitor enjoyment-related justification for the project that did not focus on how visitors will perceive or experience a potential project. The reports only describe from management’s perspective the activities that should be provided to visitors.

### Current NPS visitor data needs and usage

Decision-makers who need visitor experience data do not think they can get it. They also do not have a decision-making structure or performance measure in place for using that type of data to inform decisions. All NPS interviewees outside of the Social Sciences Division, including the Accessibility Branch, indicated that the Paperwork Reduction Act of 1995, which requires approval from the Office of Management and Budget (OMB) for any burden placed on visitors to provide information, serves as a complete “show-stopper for visitor data collection” (OMB, 2015; phone interview with Jeremy Buzzell on November 12, 2015).

However, the OMB information collection requirements are not nearly the obstacle they are commonly believed to be throughout the NPS. This revelation is according to Phadrea Pond, one of the Social Sciences Division's team of five and *the* NPS Social Sciences Information Collections Coordinator. She handles the OMB approval process for *every* survey or other type of information collection from visitors, service-wide. While the OMB still requires approval for any information gathering process that inflicts a time burden on citizens, the process has been drastically streamlined in recent years.

Pond described four methods for submitting visitor collection plans to OMB for approval. The only category of information collection that still requires a lengthy application and approval process is that for very theory-based, hypothesis testing academic research. Any information collection work related to management decisions would fall within the other three categories for which the process is drastically shortened. Visitor satisfaction-related data falls into a more streamlined process. Pond says she frequently receives OMB approval in a few short weeks.

Other federal agencies have already been more actively utilizing the reformed approval process to better inform management decisions. The Government Services Administration's Office of Citizen Services and Innovation Technology has piloted voluntary, automated, instant customer experience reviews, at "HappyOrNot" kiosks located at both passport and Social Security offices (Serbu, 2015). These surveys were part of the "Feedback USA" program.

With regard to our current population of interest, Pond, the NPS Information Collections Coordinator, has seen an almost complete dearth of surveys cross her desk that are intended for visitors with disabilities. She sees a sore need for information collection on that population of visitors. She says the federal mandate for parks to provide access to valued park experiences would enable the utmost simplicity in the OMB approval process. There is a clear need for the data to inform management decisions that will enable parks to become more accessible.

Jonathon Burpee, Superintendent for the newly created Tule Springs National Monument, described a desire in Congress to make visitor input a more integral part of decision-making processes. This goal led to a community advisory committee being mandated as part of the congressional creation of the park he now leads. He works with this committee to set direction for the park along many dimensions that will ultimately affect visitors' experiences. However, this type of congressional creation is rare, as are new parks that fall under that mandate. Further, it cannot be guaranteed that the congressionally-appointed advisory committee will represent all interests, rather than simply those that are "local and vocal".

### **Summary: The National Park Service's stage of maturity as a customer-driven organization**

Based on the information provided by the NPS interviewees regarding the structure, culture, processes, and policies related to visitor experience, the organization's level of customer experience maturity appears to fall somewhere between the "ignore" stage and the "explore" stage. The fact that some members of Congress have expressed that customer experience is important to NPS business successes is an indication that some leadership are



exploring the idea of customer-driven decision-making. However, key leaders in the NPS do not yet consider experience as a “strategic imperative” (Tempkin, 2013).

Some NPS interviewees described a slowly growing desire in the organization for visitor input to have a larger influence on decision-making. However, it appears more progress needs to be made toward Lewin’s first stage of organizational change, “unfreezing the status quo”. The vast majority of funding and resource decisions take into account only the perspective of the organization. Employees or contracted experts assess the state of facilities and programming rather than gathering insight from visitors themselves about their experiences.

In regard to accessibility, the current training and operational focus on how to meet ABA standards is outdated. It is the equivalent of a focus on a product itself, without considering a customer’s needs that a product could fulfill and designing the product accordingly.

Many at NPS whose work affects the visitor experience do not see a need for data on the visitor experience to inform their decisions. The link between their decisions and the customer experience is unclear to them. This indicates that customer-driven individuals are not necessarily filling all of the roles responsible for creating the visitor experience. This is especially true for those responsible for the experience of visitors with disabilities. Professional performance assessment is not tied to visitor experience performance on any form of metric scorecard nor is the performance assessment of the organization as a whole. Interviewees described a general (though not at all universal) lack of employee understanding and empathy for the pain points experienced by visitors, especially those with disabilities.

Many decision-makers have no measure of how successfully their new and existing projects function with visitors, just how well amenities meet code, and how many people spent how much time in which places in parks. *There is no measure to which the organization holds itself accountable of how well it delivering upon one of its two major “brand values” or the mission of the National Park Service to “provide for the enjoyment” of the country’s “natural [...] places”.*

## Recommendations

Kotter’s “sense of urgency” required for organizational change has been more than established by the need to comply with the NPS enabling legislation, the ABA, section 504 of the Rehabilitation Act, and the Executive orders (Kotter, 1995).

An opportunity exists to bring the organization to compliance with these directives *in conjunction with* the current implementation of the accessibility strategic plan. The accessibility strategic plan could set precedent for the active incorporation of the federally required customer service best practices into a new plan and has the potential to demonstrate how doing so can enable better outcomes for both the agency and its customers.

The recommended approach to improving the accessible experience is to think of this body of work as nested within a greater visitor experience program. Visitors with disabilities are, in fact, a segment within the greater visitor population whose perceptions and experiences the NPS needs to better understand. The following are proposed actions for the NPS to undertake to transform into a customer-centric organization. Emphasis will be placed on specific actions that would best help the organization understand the needs of visitors with disabilities to help NPS more efficiently design better experiences in nature for this group.



## **A. Establish of a visitor experience team to champion visitor-driven culture & process**

Designate an “owner” of the organization-wide customer experience governance strategy to “unfreeze the status quo”. This owner must bring institutional change in the way that the NPS comprehensively thinks about, measures, designs and strategizes the visitor experience with parks’ services, built environment, and natural environment. Experienced leadership for this newly created team could be selected from the burgeoning pool of mature customer experience programs in private organizations. This position could be either a Chief Experience Officer or a Customer Experience Director.

Customer experience experts say it is essential that this customer experience team has leadership representation in high-level organizational decision-making. This is consistent with Kotter’s organizational change step of forming a “coalition with enough power to create change” (Kotter, 1995). Members of this “coalition”, or advocates of the change, need to be distributed throughout the organization in order to be the voice of the customer in their area of expertise. For instance, when the American Cancer Society was undergoing transformation to be more efficient and customer-driven, a representative from each department, such as Marketing, was selected to be that team’s “Change Champion” to serve as a bidirectional conduit for information about the change.

Today, at the NPS, there is a regional position tasked with focusing on accessibility with only a small minority of his or her time as the region’s part-time accessibility coordinator. The *ideal* structure might include a full-time visitor experience manager at the regional level. This person should intentionally focus on the experience of specific segments of the visitor population. One segment should be visitors with disabilities. These regional visitor experience managers could be part of (and report up through) the newly created national visitor experience team.

The newly established visitor experience team should be responsible for diffusing a strong sense of accountability to the visitor experience throughout the organization. To ensure the visitor experience half of the National Park Service’s purpose is fulfilled, it must be measured as an indicator of operational success at all levels, strategically balanced with the indicators of resources protection. The customer experience team should help all levels of the organization understand how organizational and employee decisions can then be based on a balance between the two foci. For instance, at the park level, targets for improvement of park-specific experience measures should be incorporated into park management plans.

The visitor experience team must then work to ensure that employees understand their roles in contributing to those numbers and to that experience. In order to develop an organizational culture that leads to great customer experiences, employees need to be engaged in—that is, they need to think about and believe in—both sides of the organization’s values as determined by the enabling legislation. This high engagement in the customer perspective is essential at all levels of decision-making that can impact the visitor experience. This includes employees and volunteers whose work is directly customer-facing, management making funding decisions, and even top-tier leadership. Organizational objectives must be set in line with customer needs.

The diffusion of this cultural change and “training” program must extend to human resources, especially in an organization like the NPS that has a lot of turnover, according to interviewees: “To consistently deliver outstanding customer experience, organizations must make sure that all employees are on the same page by *hiring for*, training for, and incenting the company’s most important brand attributes” (Temkin & Zdatny, 2014). Those brand attributes in this case are the organization’s mission to provide people experiences in nature.

This visitor experience team could then partner with the Accessibility Branch and their contractors to pair the standards-based training with the more visitor experience-based empathy-building exercises. The “why” behind the legal standards and the “how” a visitor will experience its implementation can provide attention to detail in how standards are applied in each park’s unique circumstances to make sure they work for visitors. ABA standards are based on the needs of a significant portion of the population of people with disabilities; thus, a firm understanding of the standards and how they can be met is essential. However, the standards do not build empathy for the user trying to navigate the entire system of a park experience into which these accessible or non-accessible elements fit.

When an organization’s legal standards frame the “problem” to be fixed, it follows that the organization’s “solution” is to bring to standard *all* of the elements not in compliance with the standard. However, it is impossible at current levels of funding to bring a backlog of park elements to standard. Understanding the customer’s perspective on what is most impactful on the experience can enable prioritization from that backlog.

Further, the visitor experience training team should consider reallocating resources from the planned assessment of the current training situation to simply setting the desired standard for training. The resources saved from the assessment can then be used to expand the scope of future training to include important stakeholders beyond NPS employees. Neither volunteers nor concessionaires are currently included in training plans. Both of the regional accessibility coordinators interviewed mentioned the importance of these groups, with special emphasis on volunteers. They described the large portion of visitor-facing activities that are performed by volunteers, rather than paid park staff. It is essential to train these visitor-facing groups who have large impacts on national park visitor experiences, including accessible experiences.

Employees of private concessionaires have the same need for empathy in their decision-making as NPS employees and volunteers addressing other aspects of the park experience. Private concessionaires run all food and lodging services in national parks. Their service provision in national parks can impact the ability of visitors with disabilities to visit and experience the parks in meaningful ways, which means the NPS must ensure that training on accessibility and visitor experience is handled in the same way it is for internal employees. For instance, if the concessionaire-run lodge in a remote park cannot provide accessibility to a disabled guest, that travelling party may not be able to visit the park in which the lodge sits. Therefore, employees of the concessionaires should be considered important constituents of employee engagement and understanding surrounding visitor experience among different visitor segments, including visitors with disabilities.

A recent winter visit to the contractor-run lodge in Bryce Canyon National Park demonstrated this need for increased awareness among contractors’ employees around the experience of visitors with disabilities. While other paved paths around the lodge had been

cleared of ice, the path between the handicapped parking spaces and the section of the lodge with the handicapped accessible rooms had not made the list of sidewalks for ice removal, creating a treacherous situation for visitors in need of that route.

The strength of volunteers' and concessionaires' impact on the visitor experience apparently needs to be much better understood by the organization as a whole as it is not being considered within the training plan scope. Reframing the NPS's accessibility-related goals from "meeting standards" to "optimizing customer journeys" would provide insight into how and how much each type of stakeholder affects each aspect of the experience.

## **B. Pilot qualitative design research methods to boost employee engagement at all levels, to uncover hidden barriers not addressed by current standards-based approach to assessment, and to inform prioritization of improvements:**

### **i. Customer journey maps**

The power of an outside-in, customer narrative should be utilized within the NPS. When the different elements of a holistic park experience are viewed as part of a narrative, the accessibility of some elements are likely to emerge as more important to the success of the customer journey than others. Many NPS decision makers mentioned they use data about visitation that includes time spent at each attraction in a park. This type of abstract quantitative customer data funneled up and down corporate ladders is made more actionable when narratives and anecdotes about that time spent resonate with employees (Temkin & Zdatny, 2014).

A customer journey map is different in a number of ways from the approach underway with the Targeted Accessibility Improvement Program in a number of ways. The TAIP project selection criteria and program of improvements within each project were all initiated by employees & internal experts, rather than from an outside-in view. The idea of making an entire destination within the park meet standards is a worthy one; however, without a narrative of how a customer would move to, through, and from each of the targeted park destinations, it cannot be confirmed that all the improvements would even benefit the target visitor. Expenditures to bring certain features up to standard could be temporarily saved and spent to improve accessibility where there is a bigger pain point or barrier. Further, there is no guarantee that meeting the standard as it can be implemented in a unique natural place is enough to provide the opportunity for a visitor to achieve the valued experience.

Customer narratives can also reveal "quick wins" or experience improvements that can be knocked off as low-hanging fruit. Even some quick wins can make dramatic improvements in a park visitor's experience. For instance, a narrative understanding of the experience of a visitor with a disability may illuminate opportunities to improve experiences by simply providing those visitors with more information to redirect them toward more accessible routes.

Yellowstone National Park has a great example of a potential visitor experience "quick win" that could be achieved by simply giving information to visitors. This quick win opportunity would be clarified for park management by walking through the customer journey. Upon entering the park at the vehicle entrance, visitors receive a park brochure that includes a map of the park's trails. A wheelchair user, or any visitor across a spectrum of abilities, is not

provided enough information about each trail's characteristics to determine whether he or she has the appropriate level of ability to undertake each trail. A stop at one of the park's visitor centers to ask a ranger which trails are "accessible" yielded no information except an off-the-cuff suggestion that one boardwalk to a geyser is likely to be accessible. The ranger added a caveat that the boardwalk ends 200 feet from the geyser and the path that actually goes to the geyser would not be accessible (author's personal experience traveling with wheelchair-using family member in June, 2015). Merely providing information about the conditions of existing trails could enable a more seamless park experience for visitors deciding among trails. Providing information is less expensive than trail planning, development, and construction.

## **ii. Immersion, ethnographic, and co-creation exercises**

There is no better way to build empathy for users' needs than to walk in their shoes, so to speak. Immersion exercises can be used to develop a customer narrative and to inform the detailed customer journey map. Even brief immersion exercises would show NPS employees at all levels, volunteers, and concessionaire employees how to prioritize improvements toward the most impactful ones. For instance, immersion research that puts leadership and park staff in wheelchairs navigating a park can build empathy for mobility-impaired visitors. The exercise would enable employees to learn the thoughts and emotions experienced by that population of users at specific points in the journey.

Ethnographic research methods such as shadowing, either in person or via a customer video, would similarly enable employees to understand a real target user's perspective of the journey through the park. This would expose barriers, irritations, and difficulties encountered by people with disabilities (or other visitor segments) as they experience the park. These exercises can emphasize points of delight that customers' experience and could enable the organization to intentionally direct other customers toward those delightful experiences.

Zion National Park's main "accessible" paved trail, the Pa'rus, provides a great example of a specific instance in which either shadowing or immersion exercises would illuminate points of disruption for a visitor with a disability. The Pa'rus trail itself provides fantastic, up-close nature and unrivaled vistas, likely to provide any visitor of almost any ability a valuable nature experience.

Most of the trail itself meets ABA requirements and thus the park communications refer to the Pa'rus as an accessible trail, though the trail guide indicates that a wheelchair user may need assistance on some steep grades. However, getting to the accessible trail from the accessible parking spots is treacherous, providing pain points or possible barriers before the visitor can even get to the accessible trail. The bridge from the parking lot to the trailhead has sidewalks bordering auto lanes that are out of compliance with standards (see Figure 2).

**Figure 2. Sidewalk on bridge from parking to Pa'rus paved trail trailhead.**



(Photo taken by author in August 2015)

The elevated sidewalk on the bridge is barely wider than one wheelchair, so when the wheelchair user meets another pedestrian, the pedestrian, presumably, is forced into the auto lanes. If the wheelchair user meets another wheelchair user, a major problem has arisen, especially if neither has a chair with a 180-degree turn radius to wheel around on the spot to go the other direction. The sidewalk then disappears into a mere road shoulder (see Figure 3).



**Figure 3. Bridge sidewalk that disappears, leaving the sidewalk user on a road shoulder.**



(Photo taken by author in August 2015)

Next, the route to the trailhead from the parking lot requires crossing the main road into the visitor center that often has a heavy car, bus, and RV traffic flow (see Figure 4).

**Figure 4. Traffic crossing to get to Pa'rus paved trail.**



(Photo taken by author in August 2015)

On the return route to the parking lot from the trailhead, a wheelchair user finds no landing upon which to wait for the opportunity to cross the street to the bridge and must balance on a slope while waiting (See Figure 5).

**Figure 5. Lack of flat landing surface on which to wait to cross road from trail.**



(Photo taken by author in August 2015)

A study of the *trail's* compliance with a standard could miss these pain points prior to the trail (which could be an absolute barrier for some), even though the lack of a landing actually fails to meet the ABA standard. Meanwhile, wheelchair users will continue to be directed to this pain point from the park brochure and other communications that indicate the trail itself meets an accessibility standard.

Immersion research has some relative benefits in this context compared with ethnographic research. First, immersion research would bypass any OMB approval requirement as data would not be collected from customers. Second, immersion research enables empathy-building narratives to be created even in remote parks or others that have yet to build relationships with members of the disability community with whom other ethnographic research might be conducted. Though simulation of developmental disabilities may be harder, if not impossible, for testing programmatic accessibility throughout a customer journey, exercises similar to the wheelchair immersion could immerse employees temporarily in the experience of a sight-impaired or hearing-impaired visitor via budget-friendly blindfolds and earplugs.



Though immersion research can be powerfully demonstrative by itself, a key task for accessibility-focused national and regional staff should be relationship building with disability-related organizations in the region for the purposes of including them in discovery and design processes. Co-creation, or designing improvements *with* the intended user group, often leads to an innovative fix that those entrenched daily in the operations may not be able to look outside of their box to see. Those users, or visitors, experience their situation every day and may be able to reproduce solutions from other aspects of their lives. Live|Work refers to motivated users as the public sector's "untapped resource", because citizen tax payers may have a sense of ownership in the experience provided by their government agencies (Live|Work, 2015). This may be especially true of place-based experiences in which citizens actually have a shared ownership of the land itself. This assumption was confirmed by de la O's experience working with the highly engaged disability community in the Golden Gate area.

Intercepting existing visitors with disabilities for brief interviews could also be a great way to inform improvements. The OMB allows open-ended questions by representatives that encounter someone in a park in a specific situation. For instance, a representative could ask a visitor using a wheelchair, "Can you describe any issues you've experienced with accessibility today?" or "How has your ability to experience the natural environment today compared to your ideal experience in nature?" or "How could your access to the natural experience today been improved?". This is because the line of questioning does not fall along a set program and could go any direction the visitor takes it with his or her response.

National Park volunteers are likely committed, knowledgeable individuals with a desire to give their time to create great experiences for other visitors. Their existing knowledge and high engagement could be tapped for workshops with visitor groups where national, regional, or park staffs do not have capacity. Their involvement with visitors with disabilities would have the added benefit of improving their own awareness of that visitor group's needs, which can impact assistance to other visitors with disabilities.

### **C. Collect and use quantitative data on accessibility of meaningful experiences**

Visitors expecting certain constraints on their abilities to fully experience parks are likely to have high elasticity between the experience provided and their visitation. Insights from visitors with disabilities can enable parks to prioritize fixing their most salient pain points. This has the potential to ward off complaints, lawsuits, disheartening experiences, and prevented visits. Thus, a customer experience framework with a targeted sampling of this visitor population is likely to provide actionable measurements that can serve as tools for targeted improvements and prioritization of limited resources to address those issues. These insights will create efficiency in built environment and programmatic improvements that enable more visitors to meaningfully experience nature and history. It is imperative to prioritize projects that will have the greatest experiential return on investment.

Service design and customer experience professionals, Government Services Agency's six sigma expert, and disability advocates interviewed agreed: A voluntary, 311-style reporting app would be an idea worth exploring for the NPS to use for discovery and prioritization. This tool could be modeled after or created in partnership with many existing cities' use of the "SeeClickFix" apps that feed directly into local maintenance queue. Whenever the visitor (with or without a disability) encounters a barrier or pain point related to accessibility (or otherwise),



he or she could submit a geo-tagged report of the pain-point with photos and a typed description of the specifics of the issue. The reporting tool could also request information on the extent to which the issue prevented them from accessing a certain park experience as opposed to being simple inconvenience. Visitor recommendations for improvements could be gathered via another open-ended question. The app could then cache the report for later if there is no phone service where an issue is discovered, which is likely in canyons or parks far from large urban areas.

Importantly, this real-time data—where possible with phone service—would allow parks to deal with real-time issues, such as those that might be weather-related. For instance, if an icy patch or downed tree is preventing use of *the* accessible trail in the park, the park staff could be alerted to the need to quickly remove the barrier. The internal process for fielding reports of more continuous issues and using the data to prioritize projects could vary by issue type. Issues requiring general maintenance could be handled separately from larger design-related issues, and the extent of the barrier created could be weighted against the number of people with whom the pain point pops or the type of visitor. For instance, fixes might be prioritized for issues specifically encountered by people with disabilities for whom varying legal mandates guarantee nature experiences.

Visitors could receive communication of the app's availability for download at the park entrance gate, on the website for pre-trip planning, or upon booking lodging in or near the park. Visitors could be encouraged to create a profile of their travel group to enable segmenting of the data, especially for the population with disabilities. For instance, upon download of the app, users could be prompted with optional demographic and trip-specific questions from the pool of OMB pre-approved questions, such as, "Does anyone in your personal group have a physical condition that [makes] it difficult to access or participate in park activities or services?". This segmentation could also enable the data to be sent to different work groups within the park.

App users could also receive a quick sequence of Voice-of-the-Customer-type questions that pop up as they exit park, evaluating their satisfaction with their park experience. To avoid the issues with unanimous high satisfaction with the park experience as discussed above, visitors could be asked how specific aspects of their experience compare to their expectations and to their ideal for that experience. The questions could target specific elements of the experience related to the park's mission, guiding legislation, and accessibility, for instance, a Likert scale to reply to a question like, "How has your ability to access and experience the natural environment today compared to your ideal experience in nature?" Actionable data could be gathered from asking about specific issues the visitor encountered, with open-ended questions like, "What interfered the most with today's experience fitting your ideal experience?"

Pond, Visitor Information Collections Coordinator, expects this type of collection would receive quick OMB approval because of its direct tie to the accessibility mandate and its use for management action. She also sees the app with notifications format receiving quick approval and cited a recent example of another app that received quick approval for use in visitor information collections: the i-Naturalist app that enables visitors to report geo-tagged park wildlife sightings.

Though the issue-reporting app technology exists, the app design, development, and optimization could provide an opportunity to pair this project with the NPS's current Centennial mission to get younger generations involved and interested in National Parks: an app development competition could be offered across science and tech universities. Student groups and park staff could be tasked with working with visitors of all ages and abilities to build empathy for users, understand their needs, and to co-create the product with a variety of visitors.

Although quantitative methods have some drawbacks in terms of depth of data, especially in the natural experience context, as described above, they have multiple benefits that would help both park staff and visitors:

- Quantitative experience data enables types and numbers of issues experienced to be tracked over time, as well as how satisfied various types of visitors are with various experiences in parks. This Voice-of-the-Customer data could serve as the visitor experience indicators that the newly created visitor experience team could own and proliferate throughout the organization as numbers that should inform decision-making and be tied to business results.
- These quantitative experience measures can be used to set park-level targets for improvement and can be incorporated into parks' twenty-year general management plans.
- When data can be compared across parks at a regional or national scale, the data can be used to provide information to customers planning trips about which destinations are providing great experiences to visitors *like them*.
- The open ended questions in the proposed app collection would inform of the "why" behind visitor use of and satisfaction with certain park elements such that action can be taken to improve barriers.
- Ongoing quantitative measurement enables a before and after comparison of experiences in an area where an intervention has been implemented.

Tim Earley has implemented customer experience programs at two large national non-profits. He pressed that while experience measurement experts might design the quantitative data collection and complicated analysis behind the scenes, it is essential that the on-the-ground staff that can make changes actually use the customer insight to direct their decisions. Once staff are trained on the importance of the data and have it in their hands, they can infuse it into conversations happening at their level and with decision-makers at other levels of the organization. That way, he says, on-the-ground staff will not see directives as having come down from some distant decision-maker. Rather, they can see what their visitors are saying they need and make those things happen.

#### **D. Pilot the preceding recommendations with a small number of parks (or in one region)**

All interviewees who have been involved in initiating and implementing a new customer experience program in an organization have found success with starting small. Piloting allows the customer experience program to have some wins with some test cases that show the value

of the program and its elements. Success, in turn, sells the program internally such that it can be gradually scaled up to be organization-wide.

The newly created, leadership-level visitor experience team should be tasked with developing the process for diffusing the customer experience knowledge and awareness throughout the entirety of the NPS. This process should begin with leadership because organizational culture is set top-down. The team should then pilot both the quantitative and qualitative data gathering processes described above with a small number of parks or perhaps with a small region, rather than launching them organization-wide. This provides the opportunity to demonstrate the value of visitor input-based project prioritization to leadership and decision-makers throughout the organization. Importantly, it will also allow for any kinks in the data gathering and analysis process to be worked out before a large number of resources have been directed their way.

The parks selected for the pilot could be a mixture of those that receive a large number of visitor complaints about accessibility and those known for having some meaningful accessible experiences. This would enable cross-pollination of ideas among the pilot group for some quick wins even before expanding the program NPS-wide. Another approach might be to include parks that have a current local source funding for facilities or specifically accessibility improvements. That way, the spending of those immediately available funds could be directed using insight from the visitor experience program, ensuring that funded projects are those likely to have the biggest impact on the quality of the experience for visitors with disabilities.

## Conclusion

The implementation of these customer experience measurement and design elements would fulfill the goals of the five-year accessibility strategic plan by providing an understanding of the visitor experience to serve as tool for opportunity identification, project prioritization, and analysis of project success once implemented. Infusing the visitor's perspective into decision-making at all levels would improve efficiency by directing valuable resources to only the projects most likely to improve access to experiences meaningful to visitors. Further, meaningful, actionable visitor experience measurement would enable the organization to track its performance toward delivering on its mission to provide the natural places for visitors' enjoyment—*all* visitors' enjoyment, regardless of ability.

This paper's focus on the creation of an experience measurement and design framework for national park visitors, especially those with disabilities, stemmed from the project's ripeness as described. However, the importance of a decision-making process for service provision by a government body that is based on systematic experience measurement and service design processes is transferable to services provided by other levels of government for other target populations of tax-paying "customers". There is much room for expansion of these design research techniques in other place-based or built environment services.

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